

Expansion and Contraction Values sheet

NewTechWood deck boards will experience expansion and contraction with changes in temperature. Expansion and contraction are most significant where extreme temperature changes occur. Fastening the deck planks according to the gapping requirements noted in the following table accommodates for this movement.

Expansion and Contraction table of values for Europe, Russia, Northern Asia (between 40 N and 20 N in latitude)

Length (Meters)

	1	2.44	2.8	3	3.66	3.9	4	4.88	5.4		
Installation Temperature (°C)	-10	2.4	5.9	6.7	7.2	8.8	9.4	9.6	11.7	13.0	Gap (mm)
	-5	2.2	5.4	6.2	6.6	8.1	8.6	8.8	10.7	11.9	
	0	2.0	4.9	5.6	6.0	7.3	7.8	8.0	9.8	10.8	
	5	1.8	4.4	5.0	5.4	6.6	7.0	7.2	8.8	9.7	
	10	1.6	3.9	4.5	4.8	5.9	6.2	6.4	7.8	8.6	
	15	1.4	3.4	3.9	4.2	5.1	5.5	5.6	6.8	7.6	
	20	1.2	2.9	3.4	3.6	4.4	4.7	4.8	5.9	6.5	
	25	1.0	2.4	2.8	3.0	3.7	3.9	4.0	4.9	5.4	
	30	0.8	2.0	2.2	2.4	2.9	3.1	3.2	3.9	4.3	
	35	0.6	1.5	1.7	1.8	2.2	2.3	2.4	2.9	3.2	
	40	0.4	1.0	1.1	1.2	1.5	1.6	1.6	2.0	2.2	

Expansion and Contraction table of values for North America, Canada, Australia and Asia (between 20 N and 20 S in latitude)

Length (Meters)

	1	2.44	2.8	3	3.66	3.9	4	4.88	5.4		
Installation Temperature (°C)	0	1.4	3.4	3.9	4.2	5.1	5.5	5.6	6.8	7.6	Gap (mm)
	5	1.2	2.9	3.4	3.6	4.4	4.7	4.8	5.9	6.5	
	10	1.0	2.4	2.8	3.0	3.7	3.9	4.0	4.9	5.4	
	15	0.8	2.0	2.2	2.4	2.9	3.1	3.2	3.9	4.3	
	20	0.6	1.5	1.7	1.8	2.2	2.3	2.4	2.9	3.2	
	25	0.4	1.0	1.1	1.2	1.5	1.6	1.6	2.0	2.2	
	30	0.2	0.5	0.6	0.6	0.7	0.8	0.8	1.0	1.1	

Expansion and Contraction table of values for Africa, Middle East, GCC, South America, and Latin America

		Length (Meters)									
		1	2.44	2.8	3	3.66	3.9	4	4.88	5.4	
Installation Temperature (°C)	10	1.2	3.9	4.5	4.8	5.9	6.2	6.4	7.8	8.6	Gap (mm)
	15	1.4	3.4	3.9	4.2	5.1	5.5	5.6	6.8	7.6	
	20	1.2	2.9	3.4	3.6	4.4	4.7	4.8	5.9	6.5	
	25	1.0	2.4	2.8	3.0	3.7	3.9	4.0	4.9	5.4	
	30	0.8	2.0	2.2	2.4	2.9	3.1	3.2	3.9	4.3	
	35	0.6	1.5	1.7	1.8	2.2	2.3	2.4	2.9	3.2	
	40	0.4	1.0	1.1	1.2	1.5	1.6	1.6	2.0	2.2	
	45	0.2	0.5	0.6	0.6	0.7	0.8	0.8	1.0	1.1	

Note: If you are still unsure of what gapping to use, contact the manufacturer and they will give you the correct gapping requirements based on your environment and area.

When installing boards one full length across the deck, we recommended locking the board in the middle to allow for even expansion and contraction to take place on both ends as shown in Diagram 1.

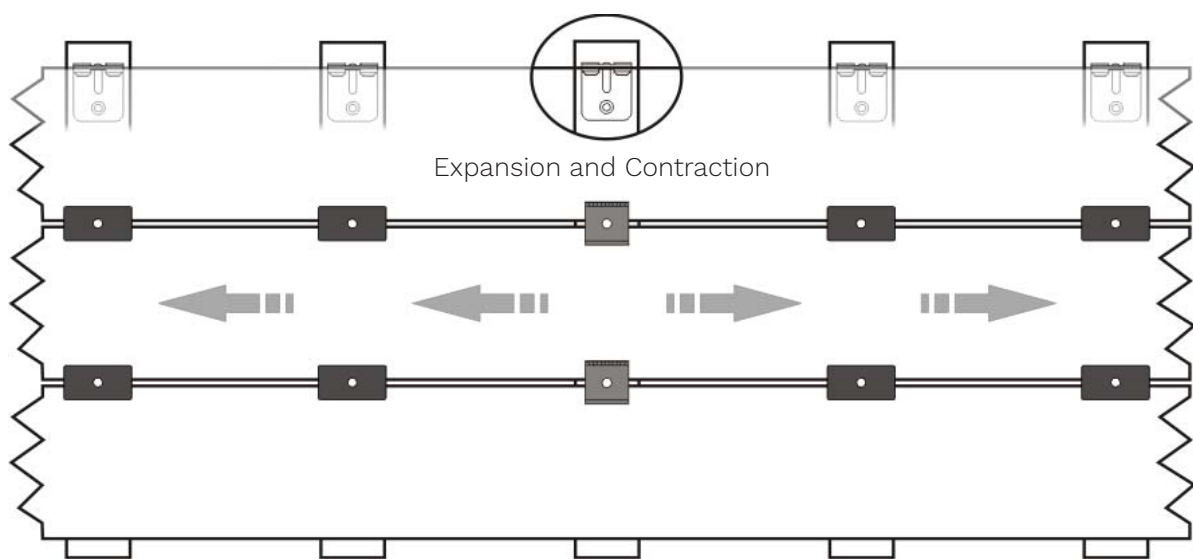


DIAGRAM 1

When installing two boards across the deck, locking clips are recommended to be used at the butt joints to ensure proper gapping during expansion and contraction as shown in Diagram 2.

Note: When butt jointing boards, sister joisting must be used so that each individual board is on its own joist to ensure that the board will not slide off the joist, failure to do so will void the warranty, as shown in Diagram 2. Also there needs to be a minimum of 5 mm (0.2 inch) between the sister joists for water to go down between the joists or swelling could occur at the ends.

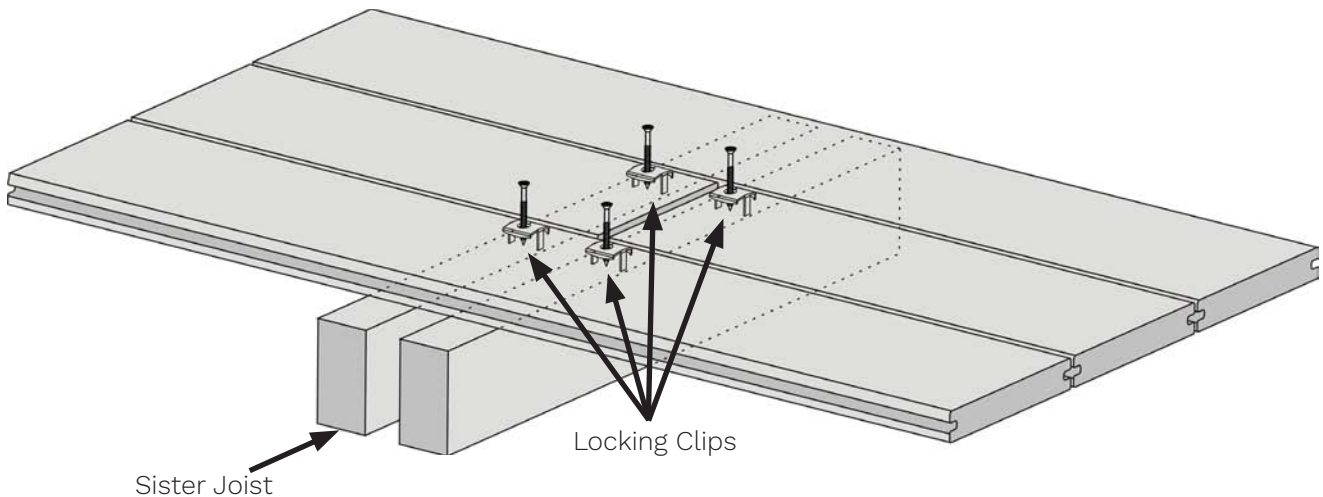


DIAGRAM 2

We recommend where there is a length of more than two boards needed to make the deck, a breaker board should be introduced as shown in Diagram 4.

Breaker Board Installation

Diagram 3 and 4 below show how framework and installation of the breaker board respectively.

Diagram 3 framework uses a ladder joist installation where the user is building a frame perpendicular for the board that will be running down it.

Note: The T-Clip can be used as a breaker board clip by cutting it in half as shown in Diagram 5.

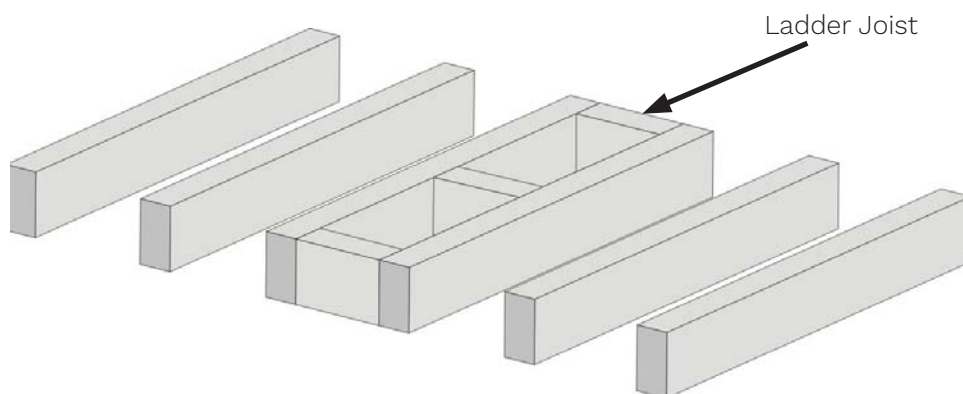


DIAGRAM 3

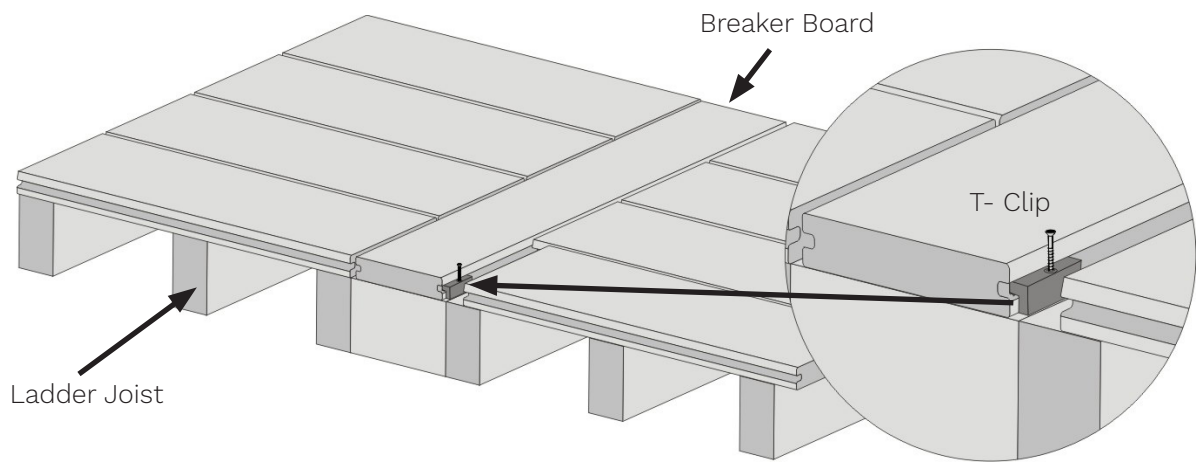


DIAGRAM 4

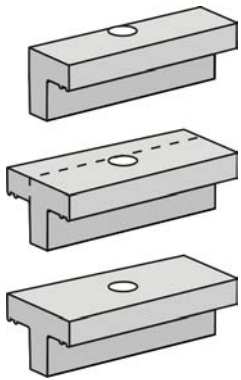
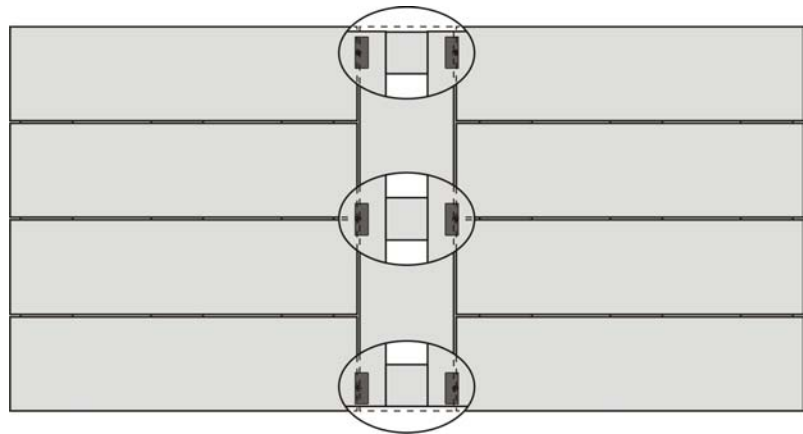


DIAGRAM 5



Note: Above view of completed breaker board with T-Clips cut in half.